

WE CLAIM:

1. A portable instrument for electro-optically reading coded indicia over an extended range of working distances, comprising:

a) a housing having a size and a shape configured to be held in a user's hand during reading;

b) a plurality of electrical and optical components supported by the housing, for directing a light beam toward the indicia for reflection therefrom and for detecting light reflected from the indicia over a field of view, one of the components being movable between first and second positions in which said one of the components is operative for optically modifying at least one of the light beam and the reflected light at first and second optical areas, respectively; and

c) a manual actuator mounted on the housing for actuation by the user, and being operative for manually moving said one of the components between the first and second positions to selectively optically modify said at least one of the light beam and the reflected light at the first and second optical areas, respectively.

2. The instrument of claim 1, wherein another of the components is a light source for emitting the light beam, and wherein said one of the components includes a focusing lens for focusing the light beam at the first and second optical areas located in the range outside the housing, the first and second optical areas being foci located at different working distances relative to the housing.

3. The instrument of claim 1, wherein another of the components is a light detector for detecting the reflected light, and wherein said one of the components includes a

focusing lens for focusing at the detector the reflected light from the indicia respectively located at the first and second optical areas in the range outside the housing, the first and second optical areas being located at different working distances relative to the housing.

4. The instrument of claim 2, wherein the light source is a semiconductor laser.
5. The instrument of claim 3, wherein the detector is a semiconductor photodiode.
6. The instrument of claim 3, wherein the detector is a charge coupled device array.
7. The instrument of claim 1, wherein the housing has a light-transmissive window aimable at the indicia during reading.
8. The instrument of claim 7, wherein the housing is elongated and extends along an axis between opposite end regions, and wherein the window is located at one of the end regions.
9. The instrument of claim 8, wherein the window lies in a plane that is generally perpendicular to the axis.
10. The instrument of claim 8, wherein the window lies in a plane that is inclined to the axis.
11. The instrument of claim 1, wherein another of the components includes a scanner for scanning at least one of the light beam and the field of view during reading.
12. The instrument of claim 1, wherein another of the components is a light detector for detecting the reflected light and generating an electrical signal indicative thereof, and

a processor for processing the electrical signal into a processed signal during reading, and a memory for storing the processed signal for downloading.

13. The instrument of claim 12, and further comprising an identifier stored in the memory.

14. The instrument of claim 13, wherein the identifier includes information unique to the user.

15. The instrument of claim 1, and further comprising a marking implement supported by the housing for marking a surface.

16. The instrument of claim 1, wherein said one of the components is operative in one of the positions for creating a visual display on a target in a pointing mode of operation.

17. The instrument of claim 16, wherein another of the components is a drive for moving the light beam in a pattern over the target in the pointing mode.

18. The instrument of claim 1, wherein the actuator is a slide switch slidable along the housing.

19. The instrument of claim 1, wherein the actuator is a trigger manually actuatable to initiate reading.

20. A portable instrument for electro-optically reading coded indicia over an extended range of working distances, comprising:

a) a housing having a size and shape configured to be held in a user's hand during reading;

b) a plurality of electrical and optical components supported by the housing, for directing a light beam toward the indicia, one of the components being movable

between a first position in which said one of the components is operative for focusing the light beam at a first focus located in the range, and a second position in which said one of the components is operative for focusing the light beam at a second focus located in the range, the first and second foci being located at different working distances relative to the housing; and

c) a manual actuator mounted for actuation by the user on the housing, and being operative for manually moving said one of the components between the first and second positions to selectively focus the light beam at the first and second foci, respectively, during reading.